

AMENDMENTS TO THE CLAIMS

1. (Previously presented) An antibody comprising a specific binding member capable of binding an intracellular antigen, wherein said specific binding member comprises a polypeptide binding domain comprising an amino acid sequence as set out as residues 99 to 106 of SEQ ID NO: 2.

2. (Previously presented) An antibody comprising a specific binding member according to claim 1, which further comprises the polypeptide domains as set out as residues 31-36 and 51-66 of SEQ ID NO: 2.

3. (Previously presented) An antibody comprising a specific binding member according to claim 2, wherein said binding domains are carried by a human antibody framework.

4. (Previously presented) An antibody comprising a specific binding member according to claim 3, which comprises the polypeptide sequence of SEQ ID NO: 2.

5. (Previously presented) An antibody comprising a specific binding member which comprises a first specific binding member comprising an amino acid sequence as set out as residues 99 to 106 of SEQ ID NO: 2 in association with a second specific binding member comprising an amino acid sequence as set out as residues 88 to 98 of SEQ ID NO: 4.

6. (Previously presented) An antibody comprising a specific binding member which comprises a first specific binding member comprising an amino acid sequence as set out as residues 99 to 106 of SEQ ID NO: 2 in association with a second specific binding member comprising the polypeptide binding domains as set out as residues 23-33 and 49-55 of SEQ ID NO: 4.

7. (Previously presented) An antibody comprising a specific binding member which comprises a first specific binding member comprising an amino acid sequence as set out as residues 99 to 106 of SEQ ID NO: 2 in association with a second specific binding member comprising the polypeptide sequence of SEQ ID NO: 4.

8. (Previously presented) An antibody comprising a specific binding member which comprises a first specific binding member comprising an amino acid sequence as set out as residues 99 to 106 of SEQ ID NO: 2 in association with a second specific binding member comprising the polypeptide binding domains as set out as residues 23-33 and 49-55 of SEQ ID NO: 4, wherein said binding domains are carried by a human antibody framework.

Appl. No. : 09/720,493
Filed : September 27, 2001

9. (Previously presented) An antibody comprising a specific binding member according to Claim 8 in the form of an antibody F(ab')₂ or scFv fragment.

10. (Cancelled) An antibody comprising a specific binding member according to Claim 1, wherein said antibody carries a label selected from the group consisting of a detectable label and a functional label.

11. (Previously presented) An isolated nucleic acid which comprises a sequence encoding a specific binding member as defined in Claim 1.

12. (Currently Amended) A method of preparing an antibody comprising a specific binding member that comprises a polypeptide binding domain comprising an amino acid sequence as set out as residues 99 to 106 of SEQ ID NO: 2, said method comprising the steps of

expressing a nucleic acid which comprises a sequence encoding a specific binding member as defined in Claim 1 ~~under conditions to bring about expression of said binding member~~, and

recovering the binding member.

13. (Currently Amended) A method of treatment or diagnosis of a tumor in a human or animal body comprising administering an ~~An~~ antibody comprising a specific binding member according to Claim 1 ~~for use in a method of treatment or diagnosis of the human or animal body.~~

14. (Currently Amended) A method of preparing an antibody comprising a specific binding member capable of binding an intracellular antigen, which method comprises:

- a) providing a starting repertoire of nucleic acids encoding a VH domain which lacks a CDR3 encoding region;
- b) combining said repertoire with a donor nucleic acid encoding an amino acid sequence as set out as residues 99 to 106 of SEQ ID NO: 1 ~~2~~ such that said donor nucleic acid is inserted into the missing CDR3 region, so as to provide a product repertoire of nucleic acids encoding a VH domain;
- c) expressing the nucleic acids of said product repertoire;
- d) selecting a specific binding member which has a maximum ~~tumour~~ tumor:blood localization ratio in a test animal of greater than 3:1; and
- e) recovering said binding member or the nucleic acid encoding said binding member.

15. (Currently Amended) A method of preparing an antibody comprising a specific binding member capable of binding an intracellular antigen, which method comprises:

- a) providing a starting repertoire of nucleic acids encoding a VH domain which lacks a CDR3 encoding region;
- b) combining said repertoire with a donor nucleic acid encoding an amino acid sequence as set out as residues 99 to 106 of SEQ ID NO: 4 2 such that said donor nucleic acid is inserted into the missing CDR3 region, so as to provide a product repertoire of nucleic acids encoding a VH domain;
- c) expressing the nucleic acids of said product repertoire;
- d) selecting a specific binding member which has a maximum ~~tumour~~ tumor:blood localization ratio in a test animal of greater than 3:1, and at said ratio, has a minimum organ to blood ratio of less than 1:1; and
- e) recovering said binding member or the nucleic acid encoding said binding member.

16. (Currently Amended) A method of treatment of a ~~tumour~~ tumor in a human patient which comprises administering to said patient an effective amount of an antibody comprising a specific binding member as defined in Claim 1.

17. (Previously presented) An antibody comprising a specific binding member which comprises a first specific binding member comprising an amino acid sequence as set out as residues 31-36, 51-66 and 99 to 106 of SEQ ID NO: 2 in association with a second specific binding member comprising an amino acid sequence as set out as residues 88 to 98 of SEQ ID NO: 4.

18. (New -- formerly claim No. 10) An antibody comprising a specific binding member according to Claim 1, wherein said antibody carries a label selected from the group consisting of a detectable label and a functional label.

19. (New) An antibody comprising a specific binding member according to Claim 18, wherein said detectable label is selected from the group consisting of radiolabels, enzyme labels, chemical moieties bound to a specific cognate detectable moiety.

20. (New) An antibody comprising a specific binding member according to Claim 19, wherein said radiolabel is selected from the group consisting of ¹³¹I and ⁹⁹Tc.

Appl. No. : 09/720,493
Filed : September 27, 2001

21. (New) An antibody comprising a specific binding member according to Claim 19, wherein said enzyme label is horseradish peroxidase.

22. (New) An antibody comprising a specific binding member according to Claim 19, wherein said chemical moieties bound to a specific cognate detectable moiety label is labeled avidin.

23. (New) An antibody comprising a specific binding member according to Claim 18, wherein said functional label is selected from the group consisting of toxins and enzymes capable of converting prodrugs into active drugs.

24. (New) An antibody comprising a specific binding member according to Claim 23, wherein said functional label is ricin.

25. (New) An antibody comprising a specific binding member according to Claim 23, wherein said functional label is carboxypeptidase.

26. (New) An antibody comprising a specific binding member according to Claim 23, wherein said functional label is nitroreductase.